

Claim 1 (Previously Presented): A method for forming a fluid dynamic pressure groove in a fluid dynamic pressure bearing, comprising the steps of:

positioning and securing multiple workpieces to be machined to their respective machining devices;

imparting an electrochemical dissolving effect to each target surface of said multiple workpieces to be machined, each of said workpieces serving as a part of said fluid dynamic pressure bearing; and

forming at least one fluid dynamic pressure groove on said each target surface of said multiple workpieces to be machined, said groove having a specified shape, dimension and surface condition,

wherein an electrolyte is directed from a common electrolyte tank to each of said machining devices used on said multiple workpieces.

Claim 2 (Previously Presented): The method for forming said fluid dynamic pressure groove according to Claim 1, wherein all machining devices used on said multiple workpieces are located on a common machining bed, and wherein said step of imparting said electrochemical dissolving effect is accomplished by supplying a pulsed voltage from a pulsed power supply.

Claim 3 (Original): The method for forming said fluid dynamic pressure groove according to Claim 2, wherein said pulsed voltage supplied from said pulsed power supply is independently applied and controlled with respect to each of said multiple workpieces.

Claim 4 (Currently Amended): An apparatus for forming a fluid dynamic pressure groove in a fluid dynamic pressure bearing, comprising:

a means for positioning and securing multiple workpieces to be machined to their respective machining devices;

a means for imparting an electrochemical dissolving effect to each target surface of said multiple workpieces to be machined, each of said workpieces serving as a part of said fluid dynamic pressure bearing; and

a means for forming at least one fluid dynamic pressure groove on said each target surface of said multiple workpieces to be machined, said groove having a specified shape, dimension and surface condition,

wherein the same electrolyte is directed from a common electrolyte tank to each machining device used on said multiple workpieces.

Claim 5 (Previously Presented): The apparatus for forming a fluid dynamic pressure groove according to Claim 4, wherein all machining devices used on said multiple workpieces are located on a common machining bed, and wherein said means for imparting said electrochemical dissolving effect further comprise means for supplying a pulsed voltage from a pulsed power supply.

Claim 6 (Original): The apparatus for forming a fluid dynamic pressure groove according to Claim 5, wherein said pulsed voltage supplied from said pulsed power supply is independently applied and controlled with respect to each of said multiple workpieces.